

DVD Player / Recorder

DVR-0900

Operation Manual



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Important Safety Instructions

Thank you for purchasing this Polaroid DVD player/recorder. We strongly recommend that you carefully study the Operation Manual before attempting to operate the recorder and that you note the listed precautions. After you have finished reading these instructions, put them in a safe place for future reference.

- Read these instructions. All the safety and operating instructions should be read before the equipment is operated.
- Keep these instructions. The safety and operating instructions should be retained for future reference.
- Heed all warnings. All warnings on the equipment and in the operating instructions should be adhered to.
- Follow all instructions. All operating and use instructions should be followed.
- Do not use this unit near water including bathtub, sink, laundry tub, wet basement, or swimming pool.
- Unplug this unit from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth on the exterior cabinet only.
- Slots and openings in the cabinet back or bottom are provided for ventilation, to ensure reliable operation of the unit, and to protect it from overheating. These openings must not be blocked or covered. Do not place the unit on a bed, sofa, rug, or other similar surface. This unit should never be placed in a bookcase or rack unless proper ventilation is provided.
- Do not install near any heat sources such as radiators, heat registers, stoves or other apparatus (including amplifiers) that produces heat.
- This unit is equipped with a polarized plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the plug provided doesn't fit in your outlet, consult an electrician for replacement of the obsolete outlet. Removal of the polarized plug will diminish the plugs level of safety.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the product.
- Only use attachments/accessories specified by the manufacturer.
- Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the product. When a cart is used, use caution when moving the cart/equipment combination to avoid injury from tip-over.
- To protect your unit from a lightning storm, or when it is left unattended and unused for long periods of time, unplug the product from the wall outlet and disconnect the antenna or cable system.
- Do not overload wall outlets and extension cords, as this can result in a risk of fire or electric shock.
- If an outside antenna or cable system is connected to the unit, be sure the antenna or cable system is grounded to provide some protection against voltage surges and built-up static charges.
- Refer all servicing to qualified service person. Servicing is required when the product has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the product, exposed to rain or moisture, does not operate normally, or has been dropped.
- Apparatus shouldn't be exposed to dripping or splashing. Objects filled with liquids, such as vases, should not be placed on the apparatus.
- Do not use cracked, deformed, or repaired disks in the unit. These disks are easily broken and may cause serious personal injury and product malfunction.



The lightning flash with arrowhead symbol within a triangle alerts the user to “dangerous voltage” which could cause electric shock.



The exclamation point within a triangle indicates to the user to read important operating and maintenance instructions in the manual.

About this manual

The operation described here mainly refers to the use of the remote control handset (R/C). Buttons with same or similar marking at the main unit have the same function like those of the R/C.

Safety Precautions

WARNING:

To reduce the risk of fire or shock hazard, do not expose this DVD player to rain or moisture.
To reduce risk of electrical shock, do not remove cover or back, no user serviceable parts inside.

CAUTION:

This product utilizes a laser. Use of controls or adjustments or performance of procedure other than those specified herein may result in hazardous radiation exposure. Do not open cover to view it, do not repair it yourself. Refer servicing to qualified personnel.

When this recorder is plugged to the wall outlet, do not place your eyes close to the opening or the disc tray and other openings to look into the inside of this recorder.

This player supports the following Media Formats:

DVD-Video, CD-R, CD-RW, CD Audio, Photo CD, DVD+RW, DVD+R, MP3

Important Note:

This unit plays CD-R, CD-RW and MP3 disks, although CD-R and CD-RW media will not be indicated in the display. Due to the variety of disk types, recording computers, operating systems and burning software we cannot guarantee that every CD-R or CD-RW is playable.

The types of functions and operations that can be used for a particular disk vary depending on the features of that disk. In some cases, these functions and operations may differ from the descriptions given in this Operation Manual. In this event, follow the instructions given on the screen. This Operation Manual only covers basic disk operations.

Copyright Information:

Unauthorized copying, broadcasting, public performance, and lending of disks are prohibited. This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

Regional Management Information:

This DVD/CD player is designed and manufactured to respond to the region management information that is recorded on a DVD disk. If the region code described on the DVD disk does not correspond to the region code of this DVD/CD player, this DVD/CD player cannot play this disk. The region code for this DVD player is "1".



Please note for a better understanding of this manual that the program of a DVD may be divided into several "titles" (e.g. main movie, material, interviews etc.). Each of these titles can be divided into "chapters". The program of audio CD's is divided into "tracks". Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories.

Features

INTRODUCTION

Thank you for buying this Polaroid DVD Recorder. We hope you enjoy this quality unit with its fantastic features and easy playback/recording operation. With it, you can watch DVDs, music disks, or watch TV shows from external source devices. The most outstanding feature that attracts you perhaps is that you can record these shows to DVD+RW or DVD+R disks in various ways, as you like.

GUIDE

The product provides customers a friendly GUIDE, which is very useful for you to understand and enjoy all functions the product provides:

■ Record Function

- Built-in TV tuner lets you record from TV, audio, video onto DVD+R/RW.
- There are CVBS composite video, S-video and RF Cable TV signal inputs.

NOTE: For best results, we recommend using the 4X DVD disks when recording.

■ Edit/Delete Function

- Disk delete and rename.
- Title deletion – Title is actually deleted with all header information about it.
- Automatic chapter insertion (at 4 min, 10 min, 20 min, 30 min intervals or OFF)
- Modification of title name

■ Timer programming feature

The following timer programming features are supported for both DVD+RW/R

- Program recording of shows – Program the unit to record an upcoming show by selecting channel, date, start time, end time, and quality of recording.
- Manual Real time Clock set up
- Back-to-back recording of shows – you can select to record two shows that have an end

time of one show coinciding with the start time of another show.

Let you enter a multi-digit codes used in TV Guide show publication for fast and easy recording.

DVD Functions

■ High Resolution

Adopt an MPEG2 decoding format to achieve horizontal resolution of more than 500 lines.

■ Superior sound

Built-in Dolby Digital decoder to output digital audio signal to reproduce high quality sound effects.

■ Special Function

Supports multi-angle and multi-language playback for enjoying unique video features.

■ Video Output

Standard Video, S-Video and Component Video output.

■ Audio Output

2CH and 5.1CH analog audio output, optical and coaxial digital audio output can be connected to any amplifiers.

■ Screen

Supports 4:3 and 16:9 aspect ratios.

■ Zoom Function

If desired, the picture can be enlarged to further enhance your enjoyment.

■ All Playback Functions

Fast forward and rewind, slow playback, step playback, repeat playback and program playback.

■ Search By Time

Search for scenes by time; ideal for finding your favorite scenes.

■ Last Memory Playback

Continue playing from the last point you stopped.

Before You Switch On

Place in Position

Choose a location with sufficient air circulation to prevent overheating. Do not expose the unit to direct sunlight or other heat sources.

The product must be positioned horizontally. Do not put any heavy objects on the housing. Protect the laser unit against dust and if necessary, use a cleansing disk. Be sure to follow the operating instructions.

Condensation

Condensation may cause the laser lens to malfunction. For example: quickly bringing the unit from a cold environment to a warm environment or using the player in humid environments can cause condensation.

- When moving the unit from a cold environment to a warm environment, take the disk out of the unit and wait for about an hour, until the unit has warmed.
- Do not use this unit in high humidity environments.

Handling Disk's

Touching the shiny surface of disks can leave dirt, oils or scratches. Always handle the disc from its label side.

Putting stickers or adhesive labels on the disk can lead to an imbalance in the disk and can cause a malfunction.



Do not expose disks to direct sunlight or other heat sources.

Do not use any specially shaped discs.

Do not use significantly warped or cracked discs.

Do not drop or bend discs.

Do not write on discs using markers or ball-point pens.

Do not place stickers or labels on discs.

Do not put two or more discs in the disc tray.

Please store the disks only in their casing.

Cleaning a Disk

Clean disks with a soft cloth. Do not use any type of cleaning agent, liquid or solvent. Wipe from the inside to the outer edge. Do not wipe in a circular direction.



Using the Remote Control

1. Open the battery compartment that is found on the backside of the remote.



2. Insert four batteries (1.5 V, size AAA). Make sure the polarity matches the marks inside the compartment or the remote will not work and could be damaged.



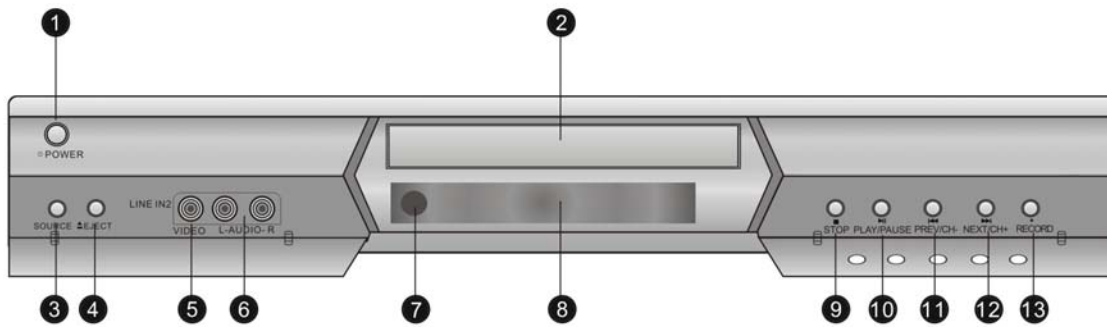
3. Put the cover back on the remote and begin using. The remote has a range of approximately 20 feet and works best when pointed directly at the DVD player (at angles up to 60° from the front of the player). Obstructions between the player and the remote (like people, pets, or plants) will diminish the remote's effectiveness.



A WORD ABOUT BATTERIES:

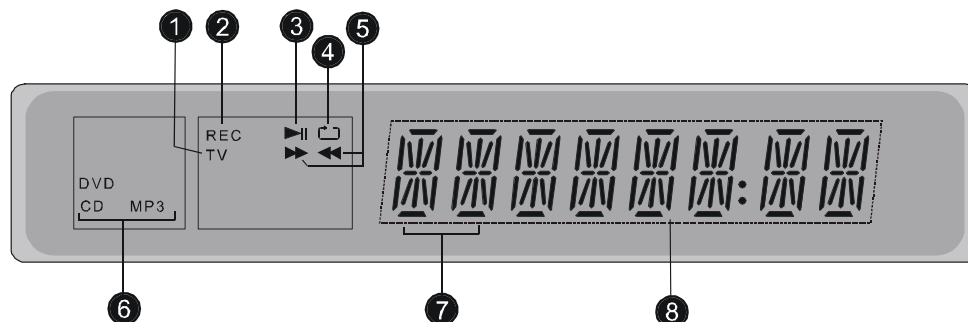
- Prevent damage to your remote by removing batteries prior to storage.
- Batteries contain chemical substances. Used batteries should be disposed of at a household hazardous waste collection site.
- Never throw batteries into fire, as they could explode.
- Do not attempt to recharge a battery unless the battery specifically is marked "rechargeable."
- Keep all batteries, used or new, out of the reach of children.

Elements of Operation - Front Panel



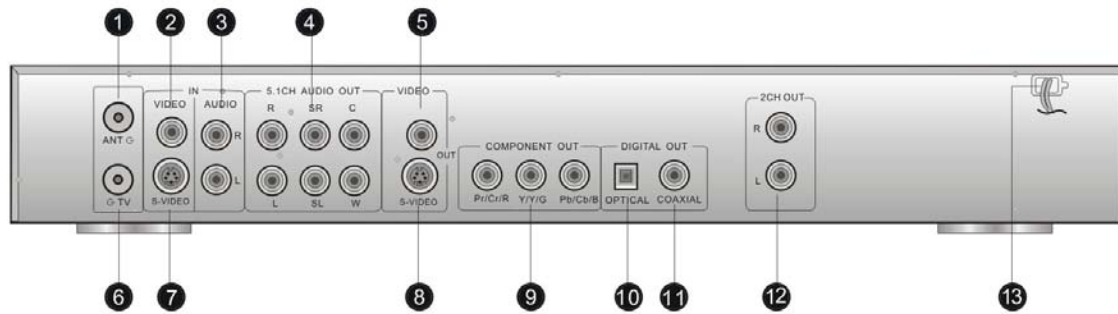
- | | |
|-------------------------------|---|
| 1. POWER button | Press to turn on/off the power |
| 2. Disk tray | Use to load disk |
| 3. SOURCE button | Press to shift between Video 1, Video 2, S-Video and ANT |
| 4. EJECT button | Press to open/close the disc tray |
| 5. VIDEO input jack (Video 2) | Connection for a video output |
| 6. L-AUDIO-R input jacks | Connections for audio output |
| 7. Remote sensor | Receives the signal from the remote control |
| 8. Display panel | Indicates the current status of the unit |
| 9. STOP button | Press to stop the playback |
| 10. PLAY/PAUSE button | Press to begin playback of the inserted disk
During playback press to pause the playback
Press again to resume the playback |
| 11. PREV/CH- button | When playing a disc, press to go back to the preceding chapter;
when watching TV press for channel down |
| 12. NEXT/CH+ button | When playing a disc, press to advance to the next chapter; when
watching TV press for channel up |
| 13. RECORD button | Press to activate the record function |

Display Panel



- | | |
|-----------------------------------|----------------------------------|
| 1. TV status indicator | 5. Fast Forward/Rewind indicator |
| 2. Recording indicator | 6. Disk type indicators |
| 3. Playing/Pause status indicator | 7. Track/Chapter indicator |
| 4. Repeat status indicator | 8. Playing time indicator |

Rear Panel

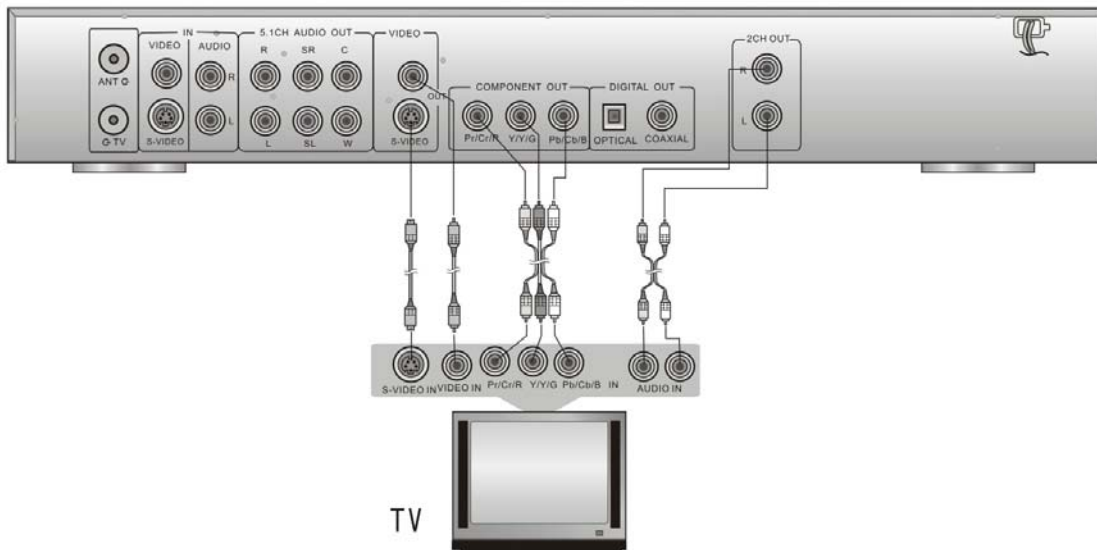


- | | |
|-------------------------------|---------------------------------|
| 1. ANTENNA jack | 8. S-VIDEO output jack |
| 2. VIDEO input jack (Video 1) | 9. Component video output jacks |
| 3. 2CH Audio input jacks | 10. Optical Digital output jack |
| 4. 5.1CH Audio output jacks | 11. Coaxial Digital output jack |
| 5. VIDEO output jack | 12. 2ch Audio output jacks |
| 6. TV TUNER jack | 13. Power-supply cord |
| 7. S-VIDEO input jack | |

Quick Setup Guide

1. Connecting to TV

See pages 13-18 in operation manual for more details.



2. Initial Recorder Setup:

Press the **SETUP** button on your remote and toggle as follows:

Channel Setup → **Auto CH Scan**



Press the **SETUP** button on your remote 2 times to get back to main menu.

Press the **WATCH TV** button to watch TV or see #3 to watch a DVD movie

3. Watch a Movie - Insert a DVD movie disk. The DVD will automatically play bringing you to the title menu.

NOTE: The DVD Recorder has its default channel list. This function allows you to watch TV without going through the Auto CH Scan process. From the **Setup Menu** go to **General** setup option. Use the Factory Default function to set the unit to factory default mode.

4. Record your favorite TV shows to DVD - Insert a DVD+RW or DVD+R disk, and press the **REC** button on your remote control or on the unit while watching the TV show you wish to record.* It's that easy! *Expect a few seconds delay when recording starts and a slight delay when recording ends. When a blank disc or recordable disc is inserted for the first time it will take about 30 seconds to read it.

5. Copy video to DVD – Connect the Video/Audio OUT jacks on your VCR or camcorder to the color coordinated INPUT jacks on the DVD Recorder. Insert a DVD+RW or DVD+R disk. Press the **SOURCE** button on the remote to select a recording source, press the **REC** button when ready to record.

DO NOT RECORD ANY DVDs until you read this!

All DVD disks are not equal! In fact, certain DVD disk manufactures have perfected video recording media. For best results, we recommend using the following brands of DVD disks when recording:

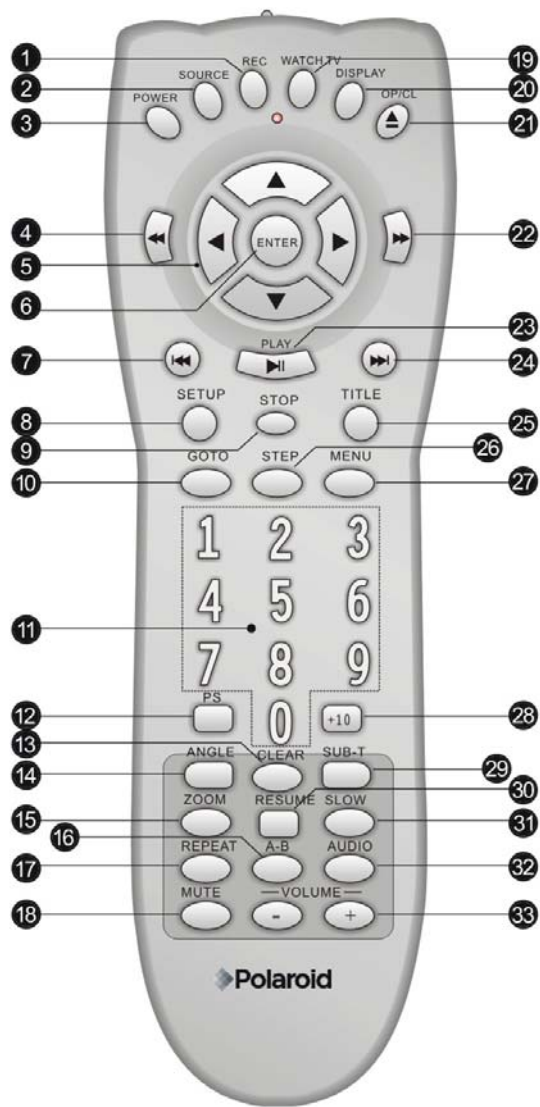
- **DVD+RW: Use Hewlett Packard®, TDK®, Memorex® or Maxell®**
- **DVD+R: Use Hewlett Packard®**

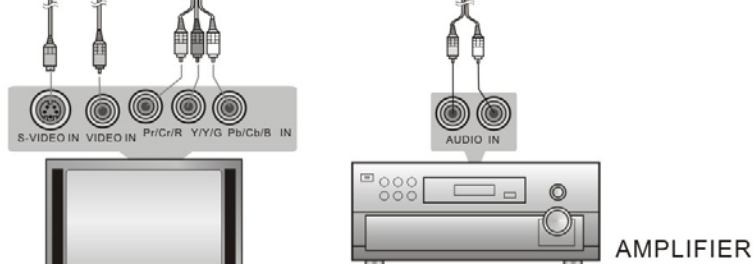
Visit www.polaroidelectronics.com for more product information and updates.

The Remote Control Handset Button Functions

1	REC	Press to start recording.
2	SOURCE	Press to shift between Video 1, Video 2, S-Video and ANT.
3	POWER	Switch between stand-by and working status.
4	◀◀	Press to search backward.
5	◀ ▲ ▼ ▶	Arrow select. (OSD navigation buttons) Press ◀ / ▶ to tune the effect of the reception. Press ▲ ▼ to advance to the next channel or to go back to the preceding channel.
6	ENTER	Press to confirm the selection.
7	◀◀◀	Press to view previously track.
8	SETUP	Press to activate the setup menu.
9	STOP	Press to stop playback.
10	GOTO	Allows you to select the desired disk starting time, track or title.
11	Number buttons	In Play DVD mode, select numbers by pressing these buttons. In TV mode, press to select channel.
12	PS	Press to shift between 'Progressive' and 'Interlace' mode.
13	CLEAR	Press to clear the incorrect input when you edit a disc.
14	ANGLE	During DVD playback, press to access various camera angles (if the DVD disk contains multiple camera angles).
15	ZOOM	When a DVD is playing, press this button to activate zoom.
16	A-B	Press to mark a segment to repeat between A and B.
17	REPEAT	Press to repeat a chapter, track, title, or all content.
18	MUTE	Press to mute the audio output.
19	WATCH TV	During DVD playback, press the watch TV. In TV mode, press the Play button to shift to DVD mode
20	DISPLAY	'On Screen Display'
21	OPEN/CLOSE	Press to open/close the disk tray.
22	▶▶	Press to search forward.
23		Press to begin the playback. During playback press to pause disc play. Press again to resume the playback.
24	▶▶▶	Press to skip to the next chapter or menu.
25	TITLE	Press to display titles of the disk.
26	STEP	Press to playback frame by frame.
27	MENU	Press to display the disk menu on the TV screen in Play mode.
28	+10	Press to select track numbers more than 10.
29	SUB-T	When a DVD is playing, press to select a subtitle language.
30	RESUME	During JPEG playback, press to choose the slideshow mode.
31	SLOW	Press to activate slow forward or slow rewind.
32	AUDIO	Press to access various audio languages (if the DVD disk contains multiple audio languages).
33	VOLUME +/-	Press to increase or decrease the volume level.

The Remote Control Handset

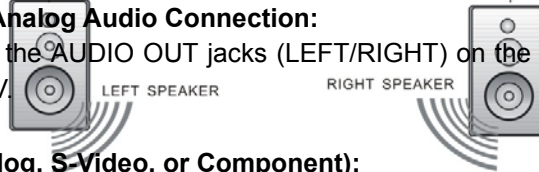




- Not all cables shown below are included with this DVD player.
- Turning off the power to all equipments involved before making any connections will protect your speakers from possible damage.

1. Connecting to a TV will give you an Analog Audio Connection:

Using the supplied audio cables, connect the AUDIO OUT jacks (LEFT/RIGHT) on the DVD Player with the AUDIO IN jacks (LEFT/RIGHT) on your TV.



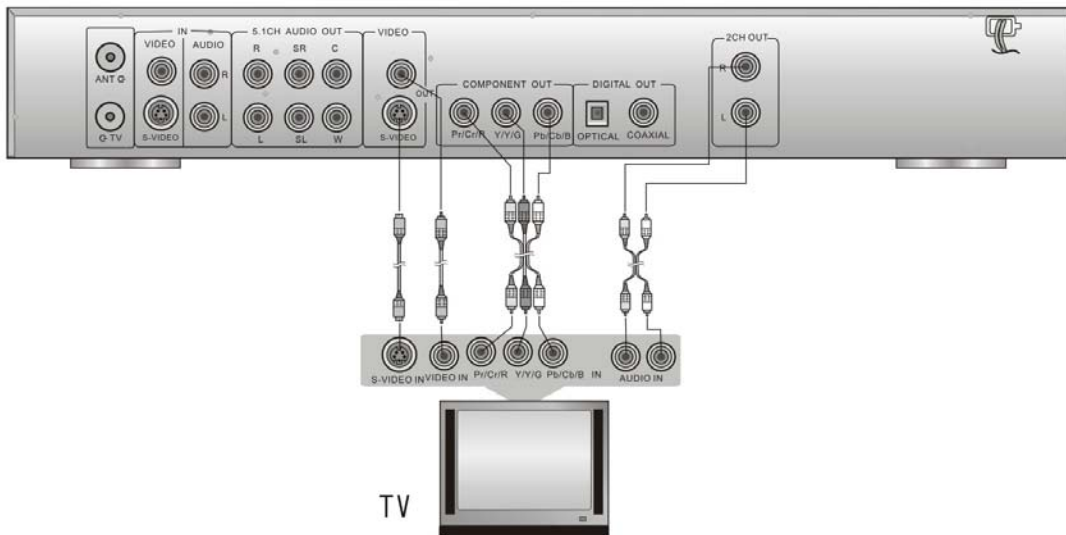
2. Choose your Video Connection (Analog, S-Video, or Component):

Good Analog Video Connection: Plug one end of the supplied video cable into the VIDEO OUT jack on the DVD Player and the other end to the VIDEO IN jack on your TV.

Better S-Video Connection: Plug a S-VIDEO cable into the S-VIDEO OUT jack on the DVD Player and the other end to the S-VIDEO IN jack on your TV.

Best Component Connection: Plug one end of the supplied video cable into the COMPONENT OUT jack on the DVD Player and the other end to the VIDEO IN jack on your TV.

Important Note: The Video Connections described above are used in the various audio/video connections described on pages 13-18 in this manual.



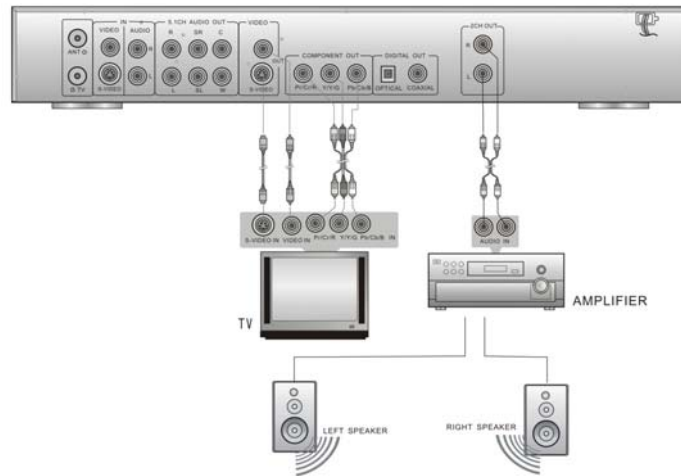
Analog Audio Connections

Using your choice of analog video, S-video, or Component video connection (see page 10), you also have the option to connect your DVD player to your stereo system for incredible stereo sound. Use the audio connection described below:

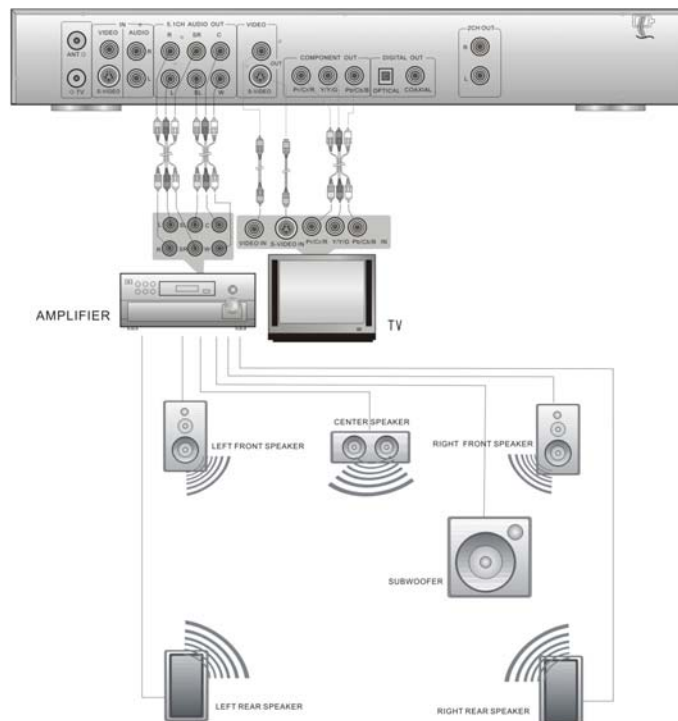
Standard Analog Audio Connections: Using the supplied audio cable, connect the AUDIO OUT jacks (LEFT/RIGHT) on the DVD Player with the AUDIO IN (LEFT/RIGHT) jacks on your amplifier or stereo receiver. Once this is complete, please turn to page 22 and follow the directions under speaker setup.

NOTE: Depending on the model of your TV, amplifier or stereo receiver, not all connections may be available.

2 Channel



5.1 Channel



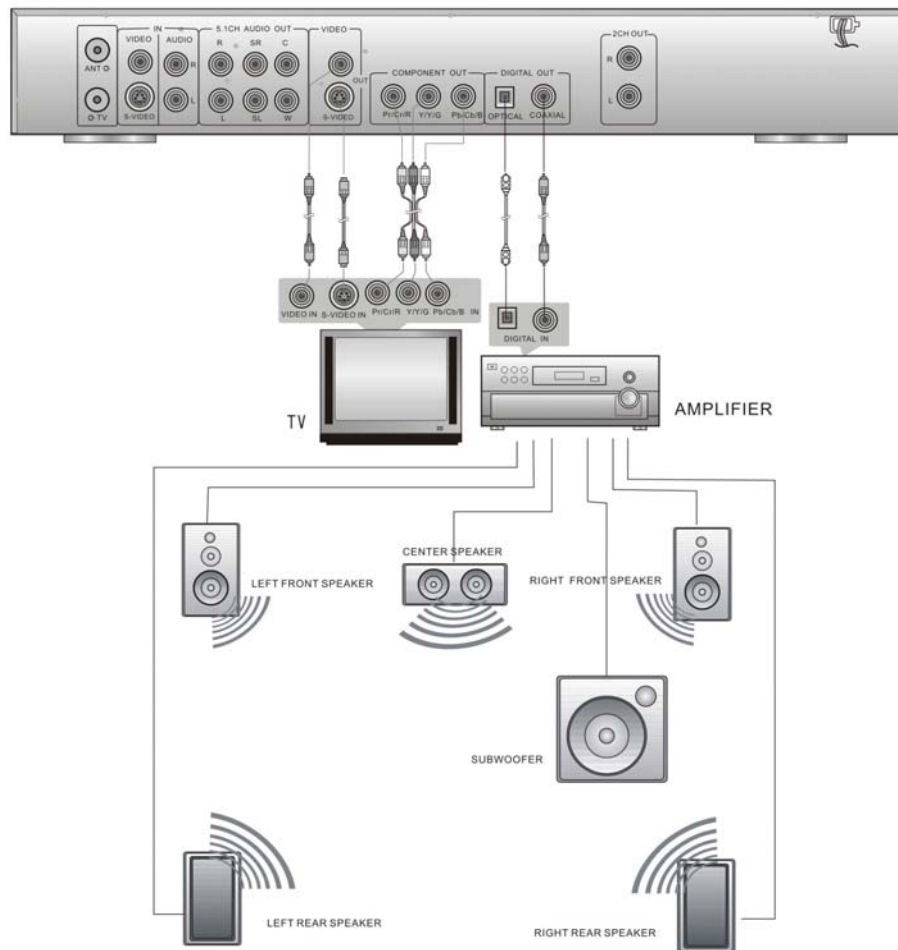
Digital Audio Connections

Using your choice of analog video, S-video, or Component video connection (see page 10), you also have two Digital Audio options when connecting your DVD player to your stereo system. It is widely debated which connection (Optical or Coaxial) gives you better performance. However, either connection will give you superior sound. Use the connections described below:

1. Optical Audio Connection: Using an optical audio cable (not included), connect the OPTICAL jack on the DVD Player with the matching OPTICAL jack on your amplifier or stereo receiver.

2. Coaxial Audio Connection: Using a coaxial audio cable (not included), connect the COAXIAL jack on the DVD Player with the matching COAXIAL jack on your amplifier or stereo receiver.

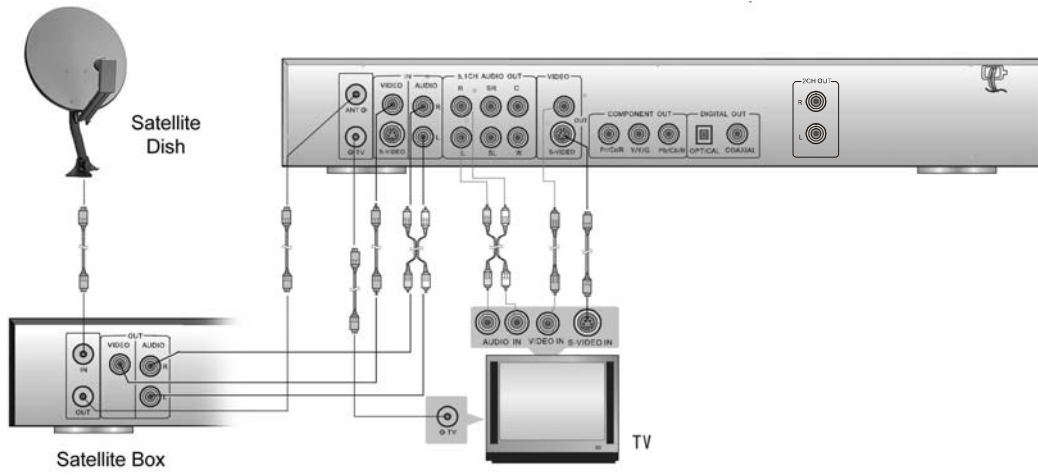
Use the following diagram to connect the DVD player to your digital amplifier.



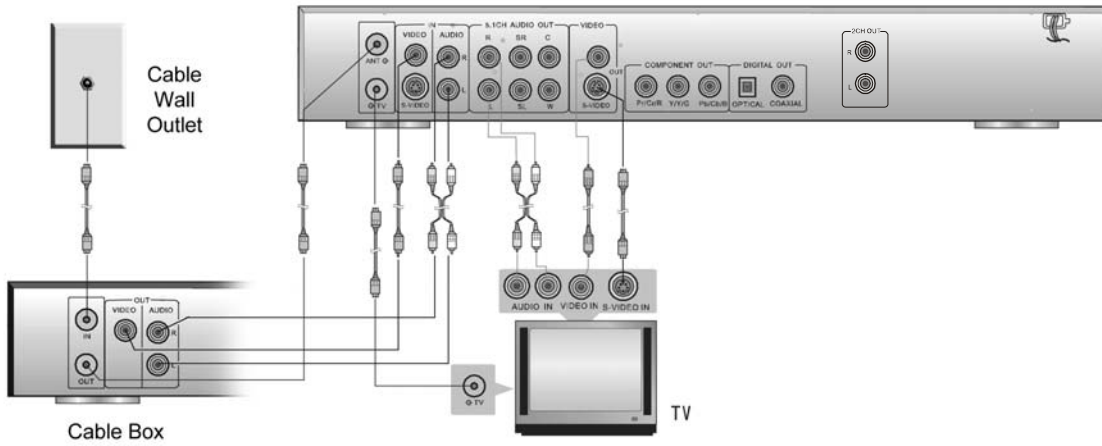
Optical Digital

A protective cap covers the optical digital output. For future protection, store the cap when using this type of connection.

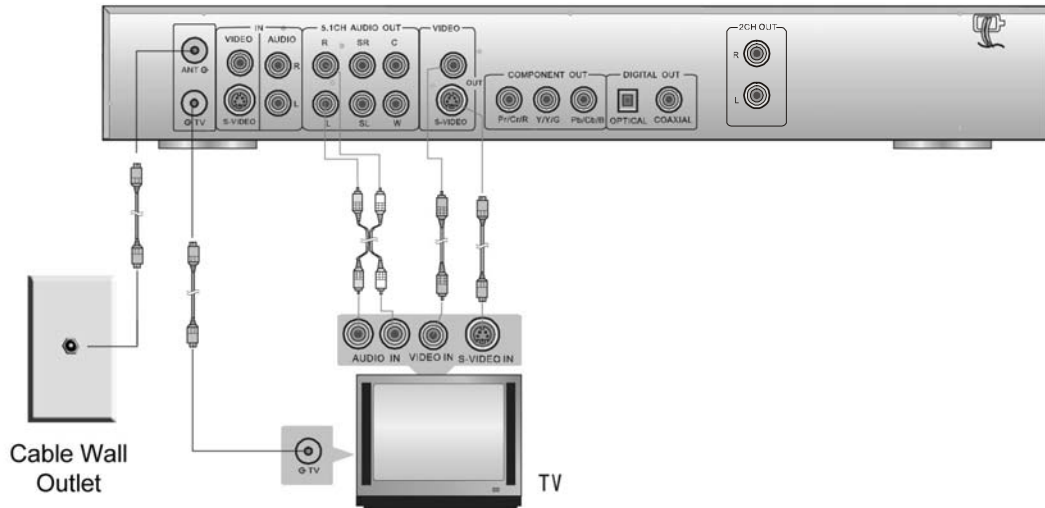
Satellite Connections



Cable Connections with Converter Box

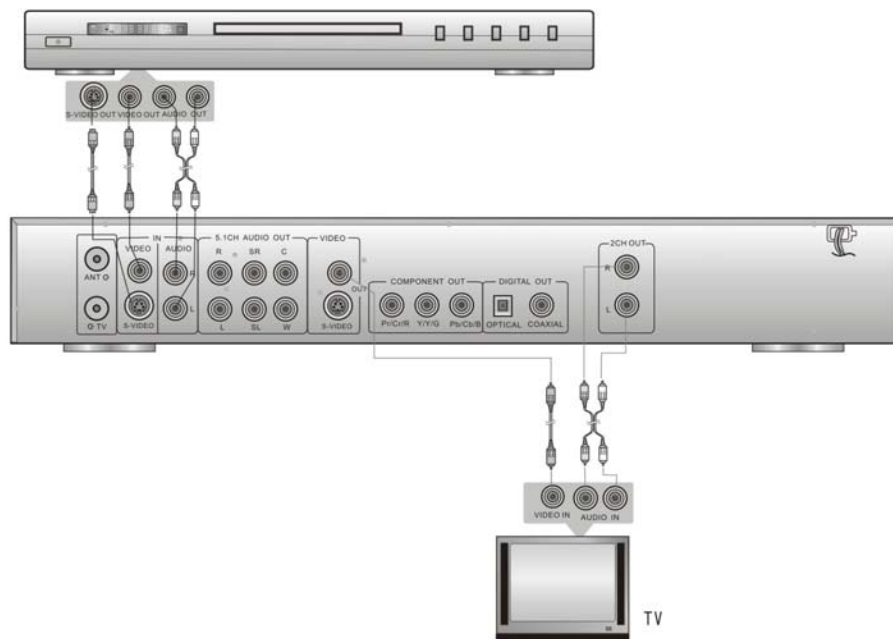


Cable Connections without Converter Box

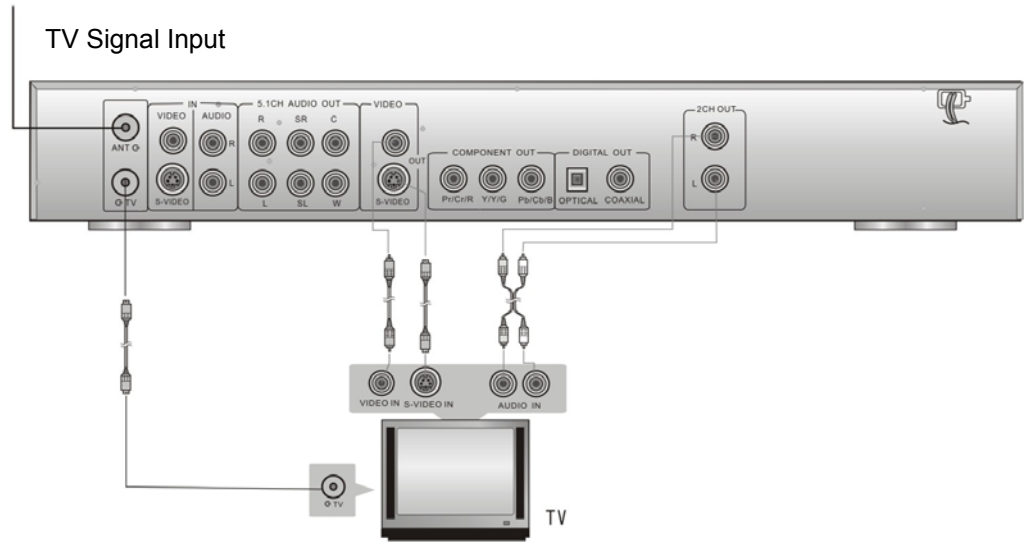


Connecting to Audio/Video Sources

This DVD player supports two-channel video input and two groups of audio input (one set of each is on the front panel, the other set of each is on the rear panel). The diagram below illustrates hooking up another DVD player to this DVD. **Note:** Most prerecorded videocassettes and DVDs are copy protected. If you try to copy them with this DVD recorder, the recorder may display the message "COPY PROTECT". You can easily connect a camcorder to this DVD Player by using the audio/video connections found on the front of the unit. Use the **SOURCE** button on the remote control handset to switch between Video 1, Video 2, S-Video and Antenna.



Connecting to the TV Tuner



The DVR Setup Menu

Installation: The DVD-Recorder is equipped with a TV tuner making it possible for you to watch TV or record your favorite shows to DVD for later playback.

1. Connect your cable TV or antenna to the TUNER input jack found on the back of the DVD player. (See page 17)
2. Make the appropriate Audio/Video connections (see pages 13-18).
3. Plug in your DVD-Recorder. Now you're ready to configure the DVD-Recorder.

Initial Configuration

1. Turn on the TV.
2. Press the **POWER** button on the remote to turn on the DVD-Recorder and press the **SETUP** button to call up the Menu. Use the ◀ ▶ ▲ ▼ (direction buttons) to highlight the desired option, and then press the **ENTER** to select.



Figure 1. The menu

Note: During DVD playback, if you want to watch TV, please highlight the Watch TV, and then press the **ENTER**.

During MP3 or CD playback, if you want to watch TV, please open the disc tray and take out the disc first.

Channel Source

You can choose between **CATV** (Cable TV) and **AIR** (Regular Antenna).



Figure 2. The Channel Source Options

Channel Setup

You must setup your channels before you record TV programs.

Auto-Channel Scan

1. From the main menu use the arrow keys to highlight "Channel Setup".
2. Press the **ENTER** button to select "Auto CH Scan".



Figure 3. The Channel Setup Options

3. When the **Auto CH Scan** function is selected, the auto-channel scanning process begins.
4. After the auto-channel scanning process finishes, the total number of channels found will be shown on the screen.
5. Select the **Channel List** function to display the complete list of all the channels that were found during the auto-channel scanning process.
6. Press the **SETUP** button on the remote to exit and save the selection.

Setting The Clock

In order for the DVD-Recorder to record using a programmed setting, the internal clock must be set to the correct time.

1. From the main menu use the arrow buttons to highlight “Setup Menu”
2. Press the **ENTER** button to select “Setup Menu”
3. Press the **ENTER** button to select “Record Setup”
4. Use the arrow buttons to highlight “Set Clock”
5. Press the **ENTER** button to select “Set Clock”
6. Use the Up and Down arrows to change the “Hour”. Note: This is a 24 hour clock; please see the chart for assistance
7. Once the “Hour” is set use the right arrow button to move to “Minute”
8. Continue to use the Up and Down arrows to edit each field. Once the field is set use the right arrow key to move to the next field
9. Once “Done” is highlighted using the right arrow key, press the **ENTER** button to save the new setting.

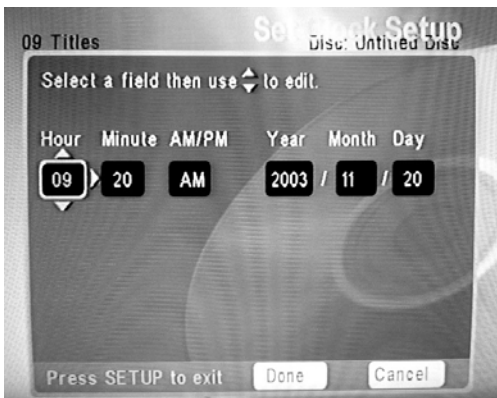


Figure 4. Setting The Clock

Clock Time Chart

AM/PM	24 HOUR
1:00 AM	1:00
2:00 AM	2:00
3:00 AM	3:00
4:00 AM	4:00
5:00 AM	5:00
6:00 AM	6:00
7:00 AM	7:00
8:00 AM	8:00
9:00 AM	9:00
10:00 AM	10:00
11:00 AM	11:00
12:00 PM	12:00
1:00 PM	13:00
2:00 PM	14:00
3:00 PM	15:00
4:00 PM	16:00
5:00 PM	17:00
6:00 PM	18:00
7:00 PM	19:00
8:00 PM	20:00
9:00 PM	21:00
10:00 PM	22:00
11:00 PM	23:00
12:00 PM	24:00

TV / Media Playback Display

1. From the **Setup Menu** go to the **Video Setup** option and select the desired TV display mode you want to use during playback of your recording, using the **TV Display** function. The DVD-Recorder can display video information several ways during playback.
 - Normal/PS (pan-and-scan): Cuts the top and bottom of the picture to fit your television.
 - Normal/Letterbox (LB): The picture displays in wide screen with black bars at the top and bottom of your television screen.
 - Wide-screen (Wide TV): If you have a wide-screen TV, it shows the movie as it was original intended without the black bars.

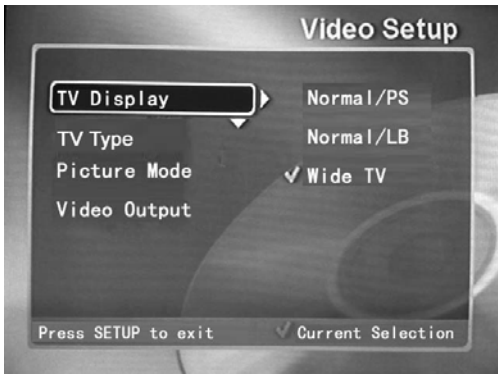


Figure 5. Select Letterbox, Pan-And-Scan or Wide-Screen

Picture Mode Resolution

This Picture Mode function in the Video Setup menu offers Auto, Film, Video, Smart and Super Smart.

TV Type

NTSC is the American standard.

Video Output

The video output allows you to set up the DVD player several ways.

- **S-video** – Divides video information into two separate signals (one for color, one for brightness).
- **Component Video (YPbPr)** – Separates color signals from black-and-white portions and into two color-difference signals for superior resolution.
- **RGB Video** – Consists of three separate video signals for red, green, and blue.

Speaker Setup (Stereo Mode)

The DVD-Recorder is 6-channel DVD-Audio capable, provided a home theater audio receiver is present. If you **are not** hooking up the DVD-Recorder to a home theater audio receiver, the 6 (5.1) audio channels will NOT be automatically down-mixed for basic stereo playback. To change this setting, please follow the following steps.

1. From the Main Menu use the arrow buttons to highlight "Setup Menu"
2. Press the Right arrow button to view the Setup Menu options
3. Use the Down arrow to highlight "Speaker"
4. Press the **ENTER** button to select Speaker.

5. Press the Right arrow button to select "Down Mix"
6. Press the Up arrow button to highlight "Lt/Rt" or "Stereo".
7. Press the **ENTER** button to select "Lt/Rt" or "Stereo"
8. Press the **SETUP** button to exit.

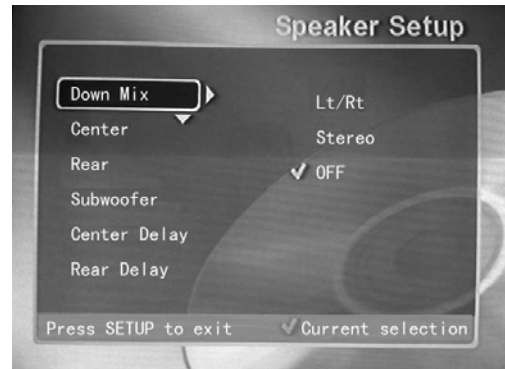


Figure 6. Basic TV-Stereo Speaker Setup

Down mix function: This function mixes 5.1 channels down to two channels. Only when Down mix is off will you see all the possible speaker options for 5.1 speaker systems. Set these options to agree with the speakers installed in your home entertainment system.

LT/RT function: This method of down mixing from 5.1 channel to 2 channel audio is well suited as input to an external Dolby Pro Logic Decoder (2 channel to 5.1 channel expansion).

Stereo function: A different method (from LT/RT down mix) of down mixing from 5.1 channels to 2 channels.

Off function: No down mixing will occur.

Speaker Setup (Multi-Channel Mode)

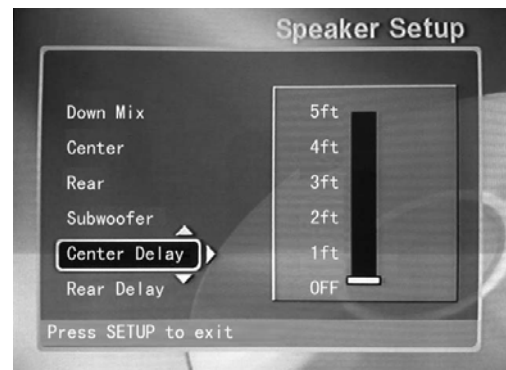
This DVD-Recorder is 6-channel DVD-Audio capable (requires a home theater audio receiver). If you are connecting the DVD-Recorder to a home theater audio receiver, refer to the owner's manual that came with your home theater audio receiver in order to select the desired multi-channel audio mode. Note: This option will not be available if the "Down Mix" selection is not set to "OFF".

1. From the Main Menu use the arrow buttons to highlight "Setup Menu"
2. Press the Right arrow button to view the Setup Menu options
3. Use the Down arrow to highlight "Speaker"
4. Press the **ENTER** button
5. Use the Up and Down arrows to move to the desired function
6. Use the Right arrow to select the desired function
7. Use the Up and Down arrow to change the option of each function
8. Once an option is selected, press the **ENTER** button to save selection.
9. Press the left arrow to move back to function select
10. Once all options are changed to desired setting, press the **SETUP** button to exit



Figure 7. Activating The Center, Rear and Subwoofer Speakers

While remaining in the **Speaker Setup** function, use the arrow buttons on the remote control to select the amount of center and rear speaker delay desired. Press the **ENTER** button on the remote control to establish the final delay distance.



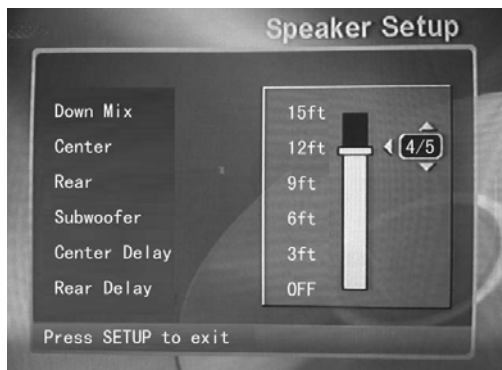
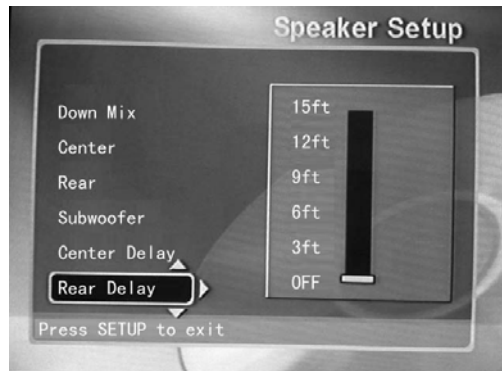
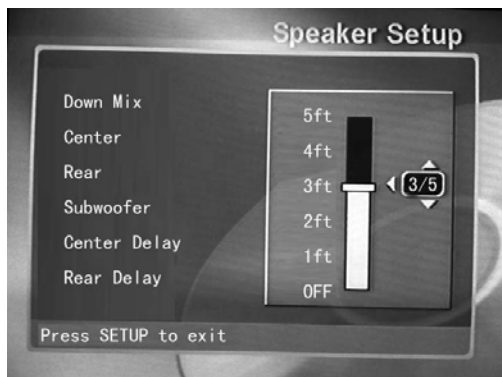


Figure 8. Establishing Center and Rear Speaker Delays
Center Delay function (*Default=0-5ms*): Increasing or decreasing the delay setting in milliseconds changes the virtual distance between the center speaker and the listener. The resulting effect, together with modifications to the rear delay, changes the listening environment to simulate different acoustical characteristics found in places such as nightclubs, auditoriums, churches, stadiums and the like.

Rear Delay function (*Default=0-15ms*): Increasing the delay setting increases the virtual distance of the rear speaker from the listener. The effect, in combination with the center delay setting, changes the listening environment to simulate different acoustical characteristics such as nightclub, auditorium, church and the like.

Speaker Test

On: Plays a single tone in step-wise fashion at each of the speakers in the clockwise direction.

Off: Test-Tone feature is not enabled.

Audio Setup

The **Audio Setup** menu allows you to access the **Digital Out**, **Dynamic Compress**, and **ProLogic** functions.

1. From the Main Menu use the arrows to highlight "Setup Menu"
2. Press the Right arrow button to select "Setup Menu"
3. Press the Down arrow button to highlight "Audio"
4. Press the **ENTER** button
5. Use the Up and Down arrows to move to the desired function
6. Use the Right arrow to select the desired function
7. Use the Up and Down arrow to change the option of each function
8. Once option is selected press the **ENTER** to save selection
9. Press the left arrow to move back to function select
10. Once all options are saved and changed to desired functions press the **SETUP** button to exit

Digital Out Setup

In DVD playback mode, **Digital Out** refers to bypassing the recorder system's internal DACS and instead feeding the digital audio signal to an external receiver for better sound quality.

1. Use the arrow keys on the remote to select the **Digital Out** function, and select one of the following options.
2. Press the **SETUP** button on the remote to exit and save the selection.

Analog: normal playback.

External Decode: Audio not decoded by recorder system so this output is appropriate for an external decoder/receiver with higher performance standards.

Internal Decode: Audio decoded by recorder system and digital signal fed to the outside of the box perhaps to be fed into an external receiver with better DACS then this recorder system.

Dynamic Compression Setup

A **FULL** to **OFF** sliding control for dynamic range allows you to turn down the level of loud passages (explosions, car crashes and the like), while at the same time keeping soft passages loud enough to clearly hear them. The setting is expressed as a fraction of the full dynamic range.

1. Use the arrow buttons on the remote to select

the **Dynamic Compression Setup** function

2. Use the Down arrow to slide the control from Full to Off based on your preference
3. Then press the **SETUP** button on the remote to exit and save the selection.

When set to **FULL**, the range between the loudest and softest is compressed to the maximum during playback.

When set to **OFF** no compression occurs during playback.

Dolby ProLogic Setup

The Dolby ProLogic feature is a Dolby surround sound audio format that can enhance standard 2-channel stereo program material.

1. Use the arrow buttons on the remote to select the **ProLogic** function, and to turn the function on and off.
2. Press the **SETUP** button on the remote to exit and save the selection

When set to **ON**, 2-channel stereo audio output is converted into six channel audio output.

When set to **OFF**, the 2-channel stereo audio output remains unchanged.

Starting the Recording Session

The *Recording Setup* menu is comprised of the **Recording Quality**, **Auto Chapter**, **Set Clock**, and **Channel Select** functions.

1. From the Main Menu use the arrow buttons to highlight "Setup Menu"
2. Press the Right arrow button to view the Setup Menu options

3. Use the Down arrow button to highlight "Record Setup"
4. Press the **ENTER** button
5. Use the Up and Down arrows to move to the desired function
6. Use the Up and Down arrows to change the option of each function
7. Once option is selected press the **ENTER** to save selection
8. Press the Left arrow button to move back to function select
9. Once all options are changed to desired function press the **SETUP** button to exit

Recording Quality

The quality of the recording to a DVD+RW/R disc directly depends on the selection of the recording mode. Decide on the quality of the recording you want, taking into account the amount of playback time each recording mode requires.

recording quality	recording pels	Bit rate per second	Recording Time
Best	720X480 MPEG2	8 Mbit/s	70min
High	720X480 MPEG2	6 Mbit/s	90min
Medium	544X480 MPEG2	4 Mbit/s	133min
Basic	352X480 MPEG2	2.2 Mbit/s	231min

Selecting **Best**, for example, means one 80-minute recording can go on the disc. On the other hand, that 80-minute recording will be excellent in terms of its overall audio-visual quality. Remember, recording times vary slightly from disc to disc.

Auto Chapter

You can also determine how much time should be allotted to every chapter of your recording, if desired. Use the arrow keys on the remote control to navigate through the chapters at playback time.

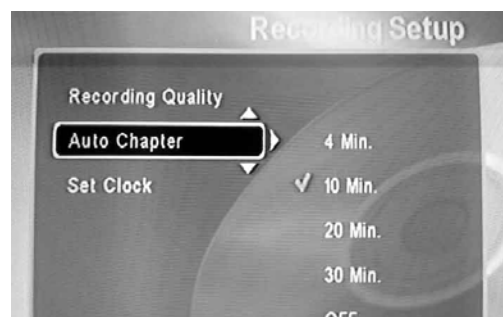


Figure 9. Selecting Time Length For Each Chapter

1. From the Main Menu use the arrow buttons to highlight "Setup Menu" and press the **ENTER** button to select
2. Press the **ENTER** button to select "Record Setup"
3. Use the arrows to highlight "Auto Chapter"
4. Press the **ENTER** button to select "Auto Chapter"
5. Use the Up and Down arrows to change the setting
6. Once you have highlighted the setting you would like press the **ENTER** button to save the setting
7. Press the **SETUP** to exit

Set Clock

The clock must be accurately set for timed recordings. See page 20 for instructions.

Recording Functions


The DVD-Recorder offers three recording functions:

- **One Touch Recording** allows you to record TV programs as you watch them on your TV screen.
- **Quick Record** allows you to perform a simplified unattended timer recording.
- **My Record List** allows you to view all the recordings that will be made onto the disk.

Note: Most prerecorded videocassettes and DVDs are copy protected. If you try to copy them with the DVD recorder, the Recorder display may show "COPY PROTECT".

One Touch Recording

1. From the Main Menu use the arrow buttons to highlight "Watch TV"
2. Press the **ENTER** button to select
3. Press the **SOURCE** button to select the desired input
 - a. ANT
 - b. VIDEO 1
 - c. VIDEO 2
 - d. S-VIDEO
4. If viewing "ANT" use the Up and Down arrow buttons to move through your channel selections

5. When you are watching a source you would like to record, press the **REC** button to start recording. The message "RECORDING" and a timer will be superimposed on the TV screen.
6. Press the **DISPLAY** button to change the on screen message.
7. During recording, press the  button to pause the recording. The program playback continues. Press the button again to resume the recording.
8. Press the **STOP** button to end the recording session. The message "CLOSING" will appear on the screen, informing you the recording session is ending. Wait a minute or so for active disc title to return to your TV screen.

Quick Recording

1. Once the disc is done loading press the **SETUP** button to call up the main menu.
2. From the main menu use the arrows to highlight "Record Program"
3. Press the Right Arrow button to select "Record Program"
4. Use the Up and Down arrow buttons to highlight "Quick Record" and press the **ENTER** button to select "Quick Record"



Figure 10. Starting The Quick Recording

5. Use the arrows to highlight "Record Time" and press the **ENTER** button to select "Record Time"
6. Use the Up and Down arrows to change the "Hour"
NOTE: This is a 24 hour clock; please see the chart on page 20 for assistance.

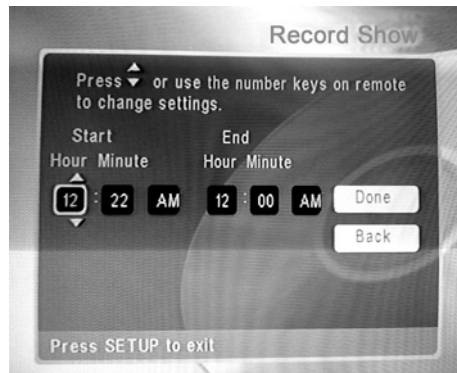


Figure 11. Selecting The Start and Stop Time

7. Once the "Hour" is set use the Right arrow key to move to "Minute"
8. Continue to use the Up and Down arrows to edit each field. Once the field is set use the Right arrow key to move to the next field
9. Once "Done" is highlighted using the Right arrow key press the **ENTER** button to go back to the record menu
10. Using the arrows highlight "Frequency" and press the **ENTER** button to select



Figure 12. Selecting The Recording Day

11. Use the Up and Down arrows to change the "How Often" field, once the field is set use the right arrow key to move to "Continue" and press the **ENTER** button. If "Once" was selected please go to step "a" below. If "Repeat" was selected go to "b" below.
 - a. Use the up and down arrows to change the date in each field, once you have the correct date use the right arrow button to move to the next field. After all fields are correct please highlight "Done" and press the **ENTER** button.
 - b. Use the Right and Left arrows to move between days and use the **ENTER** button to select and deselect days. The check mark means that you would like the unit to record on that day. After all fields are correct please highlight "Done" and press the **ENTER** button.
12. Using the arrows highlight "Channel" and press the **ENTER** button to select
13. Use the Up and Down arrows to select the channel you would like to record from.
14. Use the Right arrow to highlight "Done" and press **ENTER** to select
15. Use the arrows to highlight "Quality" and press the **ENTER** to select
16. Use the Up and Down arrows to change quality to desired setting, refer to table below

recording quality	recording pels	bit rate per second	recording time
Best	720X480 MPEG2	8 Mbit/s	70min
High	720X480 MPEG2	6 Mbit/s	90min
Medium	544X480 MPEG2	4 Mbit/s	133min
Basic	352X480 MPEG2	2.2 Mbit/s	231min

Note: Recording times vary from disc to disc.

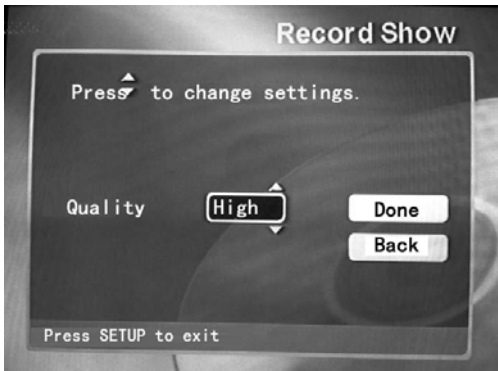


Figure 13. Selecting Recording Quality Mode

17. Once desired setting is chosen highlight “Done” and press the **ENTER** to select
18. Use the arrows to highlight “Title” and press the **ENTER** to select
19. To edit title press the **ENTER**
20. Use the arrows to move to each letter or number and press the **ENTER** to select
21. Once all number and letters are entered highlight “Done” and press the **ENTER** to select
22. Using arrows highlight “Done” and press the **ENTER**
23. Look over all settings to verify that it is correct and highlight “Done” and press the **ENTER** to save this recording to memory.

My Record List

Use this function to see your record list on the DVD recorder.

1. From the Main Menu highlight “Record Program” and press the right arrow to select
2. Using the arrows highlight “My Record List” and press the **ENTER** to select

3. Use the arrows to highlight the programmed recording you would like to view once highlighted press the **ENTER** to view
4. Press the **SETUP** to exit

Disc Play Operations

Basic Disc Play Options

The DVD-Recorder can format, erase, finalize and rename a DVD+RW and DVD+R disc using the **Disc Operations** menu functions.

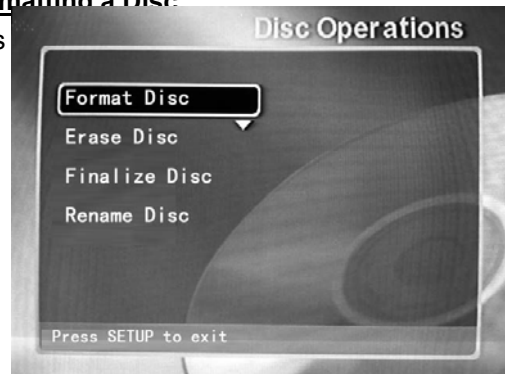
1. Press the **STOP** button on the remote control twice.
2. Press the **SETUP** button
3. Use the arrows to highlight “Play/Edit Disc” and press the Right arrow to select
4. Use the arrows to highlight “Edit Disc” and



Figure 14: The Disc Operation Menu

Formatting a Disc

This



1. From the Basic Disc Options menu (See section Accessing Basic Disc Options) highlight “Format Disc”
2. Press the **ENTER** to select



Figure 15: Formatting a Disc

Erasing a Disc

NOTE: ERASING ANY DISC IS AN IRREVERSIBLE AND PERMANENT OPERATION! Be sure to back up any and all titles or tracks you want to save onto another disc before erasing the original disc!

The **Erase Disc** function is used to erase all data from a disc. This function is only available on DVD+RW discs. Once any disc is erased, whatever was on it is permanently gone.

1. From the Basic Disc Option menu (See section Accessing Basic Disc Options”) highlight “Erase Disc”
2. Press the **ENTER** to select
3. You’ll be asked to confirm you want to erase the disc. Select Yes, to proceed with erasing.

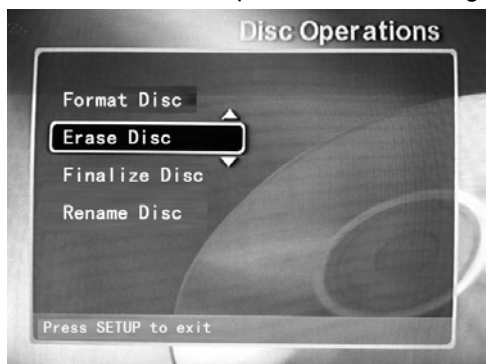


Figure 16. Erasing a Disc
Finalizing a Disc (DVD+R Discs Only)

When you want to finalize your recordings on a DVD+R disc, use the **Finalize Disc** function. **NOTE:**

Once a DVD+R disc has been finalized, you cannot either edit any of the titles on the disc, nor can you add any new titles to the disc! The recorded DVD+R disc is only available on other DVD player when the disc has been finalized.

1. From the Basic Disc Options menu (see previous page for directions on accessing Basic Disc Play Options”)
2. Select **Finalize Disc** then press **ENTER**

Renaming a Disc

1. From the Basic Disc Options menu (See section Accessing Basic Disc Options”) highlight “Rename Disc”
2. To edit disk title press the **ENTER**
3. Use the arrows to move to each letter or number and press the **ENTER** to select
4. Once all number and letters are entered highlight “Done” and press the **ENTER** to select
5. Once the “Disc Operations” menu appears on screen press the **SETUP** button to exit

Renaming/Deleting a Title (DVD+RW Discs Only)

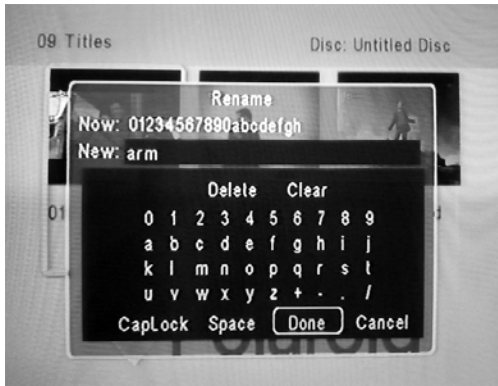
Accessing the *Play/Edit Titles* menu option from the *Menu* lets you rename and delete titles as desired,

1. Press the **TITLE** button
2. Highlight title to change using the arrows and press the **DISPLAY** on remote to select



3. Highlight desired option and press the **ENTER** to select. If you choose **TITLE RENAME** go to step A below. If you choose **TITLE DELETE** you will be brought back to the title menu.

- a. Use the arrows to move to each letter or number and press the **ENTER** to select



- b. Once all number and letters are entered highlight Done and press **ENTER**

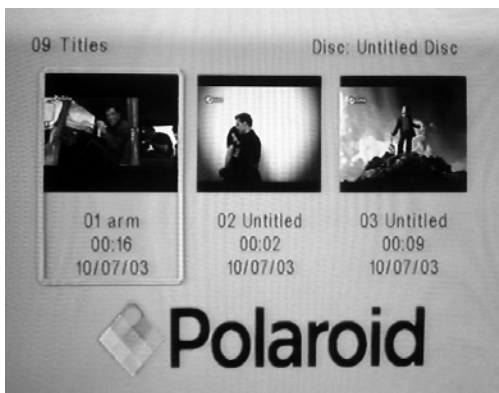


Figure 17. Renaming and Deleting Disc Titles

Disc Playback

This section addresses basic playback for DVDs and CDs.

Playing Back a Disc (DVD-CD)

1. Press the **POWER** button on the remote control to turn the unit on from standby mode
2. Press the **OP/CL** button to open the DVD disk tray loader
3. Place a DVD disk on the disk tray
4. Press the **OP/CL** button to close the DVD disk tray loader. The player starts to play the first selection recorded on the disc and continues sequentially until the end is reached.

NOTE: In the event playback is not realized, check to see if the parental controls are preventing playback. Turn off the parental controls to realize disc playback

Angle Mark

1. From the Main Menu highlight “Setup Menu” and press the Right arrow to select

2. Use the arrows to highlight “DVD Control” and press the **ENTER** to select
3. Use the arrows to highlight “Angle Mark” and press the right arrow to select
4. Use the Up and Down arrows to highlight desired choice and press the **ENTER** to select

Language Selection

1. From the Main Menu highlight “Setup Menu” and press the Right arrow to select
2. Use the arrows to highlight “DVD Control” and press the **ENTER** to select
3. Use the arrows to highlight “Language Preference” and press the right arrow to select
4. Use the Up and Down arrows to highlight desired language and press the **ENTER** to select



Figure 18. Choosing Language Preference

Pausing Playback

1. Press the **▶||** button any time during playback of a disk. A “freeze frame” is created that stays on the screen until you resume playing the disk. Sound is muted during still playback.
2. To resume playback, press the **▶||** button again.

Fast Forward/Reverse Playback (x2 – x8 Normal Speed)

1. Press **▶▶** or **◀◀** buttons during playback. After the fifth press, normal speed playback resumes.
2. Alternately, press the **▶** button to resume normal playback at any fast speed setting.

Stop Playback

1. Press the **STOP** button.
2. Press the **PLAY** button to resume playing.
3. Press the **STOP** again. When stopped, this player returns to chapter 1 or track 1.

Using the Trick Modes

The DVD-Recorder supports the following trick modes:

- **Fast forward (FF),**
- **Fast reverse (FR),**
- **Slow Motion (SF),**
- **Repeat A-B,**
- **Slow motion step frame-by-frame, and**
- **Zoom In/Out**

You can use these trick modes when live video or recorded video is displayed on the screen, so long as some amount of video has been stored in the circular buffer.

Slow Motion

When video is stored in the buffer, you can select the **SLOW** speed at any point by pressing the **SLOW** button. You can continue to press the **SLOW** button two times to parse the disk at 4x and 8x, before returning to normal speed.

Fast Forward/Fast Reverse

Press the **▶▶** button to jump forward in discrete steps of 2x, 4x, 6x, or 8x normal playing speed. The screen will display the active fast forward speed (FF 2x, FF 4x, FF 6x, or FF8x).

Likewise, pressing the **◀◀** button will allow you to jump backward in discrete steps. The screen will display the active fast reverse speed (FR 2x, FR 4x, FR 6x, or FR 8x).

Slow Motion Step Frame-By-Frame

Press the **STEP** button repeatedly to step through frames one at a time during your playback session. Press the **PLAY** button to resume normal viewing.

Repeat a Segment Between Points A and B

When viewing a DVD, you can designate two points and then view the designated segment repeatedly until you want to resume normal viewing.

1. While watching the DVD movie, press the **A-B** button at the point you want a segment to start. A message flashes at the top of the display to confirm your action (**A TO B SET A**).
2. Allow the video to continue playing and press the **A-B** button again at the point you want the repeat segment to end. This time the message will flash: **A TO B REPEAT ON**. Following these directions will cause your segment to start from point A, play to point B, and continue indefinitely.
3. To stop the repeat **A-B mode**, press **REPEAT** again. The segment stops playing and a message will flash: **A TO B CANCELLED**.

Zoom In/Out

When viewing a DVD, you can zoom in on any particular segment or frame as desired.

To zoom out and return to normal viewing, you have to cycle through all of the levels of magnification. Typically, most DVD movies offer up to three levels of magnification before returning to normal viewing.

1. To zoom in on a single frame, press the **PAUSE** button on the remote to freeze the frame. Once the frame is displayed, press the **ZOOM** button on the remote as desired to magnify the frame on your TV screen.
2. To zoom in on a sequence of frames, press the **ZOOM** button as desired to magnify the sequence during its progression.

Resuming Playback From The Same Location (all discs)

1. During normal playback, press the **STOP**. The screen displays a stationary logo or, if the screen saver is set to on, the screen saver is displayed after a timeout interval.
2. To resume playback, press the **PLAY** again. However, this step does not work if you eject the disc, reinsert the disc, and then try to resume from the same spot.

Locating A Specific Title Or Chapter Using The MENU Button (DVD)

To play a specific chapter from a given title on a DVD you can use the **TITLE** button to display a menu to make your title and chapter selection.

The procedure described here is general in nature. If the steps seem inappropriate for the DVD you are attempting to play, disregard these instructions and follow the instructions that appear on the screen.

1. During normal playback, press the **TITLE** button. The screen displays the chapter menu of the disc. The menu may not contain all the chapters in the movie title. However, the disc creators provide additional menus to navigate, which cover all the chapters. Use the direction buttons to navigate the menus.
2. Position the screen highlight over your selection and press the **PLAY**. Alternately, you can press the number of the desired chapter.
3. During playback, you can press the **GOTO** and enter a chapter number. Press a number button corresponding to the chapter number and press the **ENTER**.

Repeating a Chapter Or Track (DVD-CD)

1. While playing a chapter, press the **REPEAT**. The message **CHAPTER REPEAT ON** appears
2. To repeat the entire title, press the **REPEAT** again. The message **TITLE REPEAT ON** appears.
3. Press the **REPEAT** again to resume normal playback. The message **REPEAT OFF** appears.

Zooming and Shift Point Function (DVD)

To zoom in x1.5, x2, or x3:

1. During normal or slow motion play, press the **ZOOM**. The picture is magnified x1.5
2. To increase magnification press the **ZOOM** again (x2) and again (x3)
3. Pressing the **ZOOM** again turns zoom off
4. While zoomed you can change the viewpoint by pressing the direction buttons

CD Playback

The player will play all tracks for CD discs continuously in default status. You can press **⏮** buttons or number buttons to select a certain track.

MP3-CD Playback

When you have inserted a MP3 coded CD you see a menu showing the folders on the CD. Use the

◀ ▲ ▼ ▶ (direction buttons) to select the desired folder, and then press the **PLAY**. Now the tracks inside are displayed.

1. Press the direction button ▶ to open the folder. Use these buttons ▲ ▼ to choose a song, then start playback.
2. Press the **STOP** button to end the playback.
3. Press the **REPEAT** button to select various repeat modes.
4. Press **⏮** or **⏭** to skip to the other song page.

Viewing JPEG Pictures

If you save JPEG pictures to a CD ROM you can view them on a television monitor. The software that created the JPEG picture CD creates a folder that you can examine when you select **Play Disc**. There are several ways of viewing the pictures.

Previewing Contents of a Folder

1. Open the disc tray, insert the JPEG disc and close the tray
2. The disc contents are displayed (JPEGs may be in a folder)
3. To preview a picture, use direction buttons to move the highlight over a folder entry. The small preview window reveals the contents of a clip when the highlight is positioned over the clip title
4. To see a full screen view of the selected clip, press the **PLAY**.

Depending on the way the Slideshow control is conditioned; a slideshow may commence operation as soon as you view the full screen presentation. There are three slideshow modes: Sequential, Random, and Manual. In Sequential mode, slides are automatically presented in the order they appear in the disc directory.

1. To cancel the slide show press the **RESUME** (Slideshow) until the message **NONE** appears
 2. To view a random slideshow press the **RESUME** until the message **RAND** appears
- To continue previewing clips press the **STOP**

Zooming a JPEG

You can enlarge a JPEG to see detail up close.

1. Position the highlight over a desired JPEG
2. Press the **ZOOM** button. The message **ZOOM ON** appears
3. Press the ▶ button; the view enlarges to 150%.

- Pressing the **▶▶** button repeatedly steps through 150%, and 200%
- To resume normal enlargement, press the **ZOOM** again

Panning Around a JPEG

- Follow usual procedure for playing a disc: Open the disc tray, insert the JPEG disc and close the tray
- Select a JPEG for viewing
- Press the **ZOOM** button
- Use the direction buttons to pan up, down, left and right.

Rotating a JPEG

- Position the highlight over a desired JPEG.
- Press the right or left direction button one time. The displayed picture rotates 90 degrees to the left or right depending upon the button pressed. To continue rotating the picture, keep pressing the direction button.

Special Features

Parental Controls

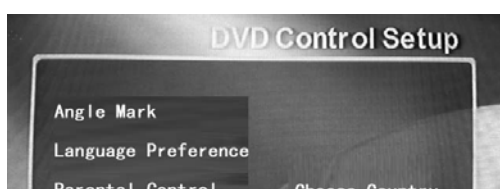
Use the **Parental Control** and **Choose Rating** functions in the **DVD Control Setup** menu to block playback of DVD disks that are not within the parental settings chosen.

- From the Main Menu highlight **Setup Menu** and press the Right arrow button to select
- Use the arrows to highlight **DVD/Control** and press the **ENTER** to select
- Use the arrows to highlight **Parental Control** and press the **ENTER** to select
- Use the arrows to move to each letter or number and press the **ENTER** to select
- Once all numbers and letters are entered highlight **Done** and press the **ENTER** to select

NOTE: The factory default password is **3308**. In order to use a new password, the default password must first be entered. A new password comprised of a mixture of letters and numbers (ex. GB28MN0) works best. If you decide to use passwords, keep a written record of them! Keep the password list in a safe place in your home, preferably something with a lock on it.



Figure 19. Invoking Parental Controls and password protection



Helpful Hints

If you are having problems with your product, check this list of problems and possible solutions before requesting service. You may be able to solve the problem yourself. If you need to call a customer service representative, please know the model number and serial number of your product before you call. You can find this information on the rear of the product. Also, please take a moment to identify the problem you are having, and be prepared to explain this to the representative. If you believe the representative will need to help you with operations, please stay near the product. Our representatives will be happy to assist you.

No Power

- Press the ON/OFF switch on the front of the DVD Recorder to turn on the DVD Recorder.
- Connect the supplied power cord securely to the AC power jack on the rear of the DVD-Recorder. Connect the power cord firmly to an AC power outlet. Use only the supplied power cord.
- Make sure the AC outlet has power by trying another appliance in the same outlet.

No Picture

- Make sure the TV power is on.
- Check the video cables. Make sure the cable(s) are fastened securely to the Recorder and the TV.
- Set your TV to the correct Video In channel. These channels are usually near channel 00. Or, you may have a button on the TV remote control that selects an Auxiliary or A/V IN channel. See your TV owner's manual for details. Or, change channels at the TV until you see the Recorder's background picture on the TV screen. You only need one video connection between the DVD Recorder and the TV.

Distorted Picture

- Check the disc for fingerprints. Clean the disc with a soft cloth, wiping from the center to the edge in a straight line.
- Sometimes a small amount of picture distortion may appear. This is not a malfunction. The picture is distorted; the picture is black and white during playback.
- TVs have a color system standard, usually NTSC in the United States. If the disc's color system is different than your TV's color system, the picture may be distorted or colorless.

The Recorder cannot record in color if the TV channel or source is not providing color. In some situations, programs that are broadcast in black and white cannot be recorded.

Distorted Sound During Playback Through Your Stereo System

- Do not connect any cables from the DVD-Recorder to the Stereo's "PHONO IN" jack.
- Do not connect a digital jack on the Recorder (DIGITAL AUDIO OUT - OPTICAL or COAX) to an analog jack on the Stereo. (Analog audio jacks are usually labeled as such and are usually red and white.)

No Sound

- Check the audio connections. Remember, you only need one audio connection. Make sure cables are connected firmly to all equipment.
- Select another channel, sound source, or Auxiliary station at your Stereo or TV. See your Stereo's manual or TV's manual for details. Or, just continue selecting the different sound sources or modes on the Stereo or TV until you hear sound from the disc that is in the DVD-Recorder.
- Check your Analog output settings or Digital output settings. Make sure you choose the right setting; based on what equipment you connected to the DVD Recorder.

Make sure your Analog output settings or Digital output settings match the capabilities of your Stereo Receiver or TV.

Technical Specifications

General Specification	Operating voltage	AC 120~ /60Hz	
	Power consumption	≤45W	
	Weight (approx.)	9.92 lbs.	
	Dimensions	2.16" H x 17.06" W x 11.82" D	
	Operating Temperature	+2□~+40□	
Player	Color System	NTSC	
	Frequency Response	20Hz□20kHz ±2.5dB	
	Audio S/N Ratio	≥ 85dB (1kHz)	
	Audio Distortion + Noise	≤ -70dB (1kHz)	
	Channel Separation	≥ 70dB (1kHz)	
	Dynamic Range	≥ 80dB (1kHz)	
	Output	Analog Audio Output	Voltage□2V _{±1.0} ^{0.2} □ Impedance□10KΩ
		Digital Audio Output	Voltage□0.5Vp-p□ Impedance□75Ω
		Video Output	Voltage□1Vp-p±0.2□Impedance□75Ω Unbalanced Negative
		S-Video Output	Voltage□Y□1Vp-p□ C□0.286Vp-p□ Impedance□75Ω
		Component Output	Voltage□0.7Vp-p□ Impedance□75Ω
	Input	Composite Video In	Out Level:1V _{P-P} ±0.2, Load:75Ω Unbalanced Negative
		S-Video In	Out Level: Y: 1V _{P-P} , C: 0.286V _{P-P} Load:75Ω
RF Signal Input		Out Level: Y: 1V _{P-P} , Load:75Ω	

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Frequently Asked Questions

1. How many shows can I record on a DVD?

- a. The total number of shows that can be recorded onto a DVD disc directly depends on the selection of the quality of the recording. See chart below: Keep in mind; disc recording times vary slightly from DVD to DVD.

Recording quality	Recording pels	Bit rate per second	Recording time
Best	720x480 MPEG2	8 Mbit/s	70 min
High	720x480 MPEG2	6 Mbit/s	90 min
Medium	544x480 MPEG2	4 Mbit/s	133 min
Basic	352x480 MPEG2	2.2 Mbit/s	231 min

2. The recorder is stopping and starting recording. What's wrong?

- a. If you receive a "Closing" message followed by a "Recording" message, it indicates the recorder has run into a flaw on the disc. You'll need to use a different disc to complete the recording. Always be sure to use the highest quality discs. We recommend the following:
 - i. DVD+RW: Use Hewlett Packard®, TDK®, Memorex® or Maxell®
 - ii. DVD+R: Use Hewlett Packard®

3. How do I record video from my Camcorder onto a DVD?

- a. Open drop down panel on the front left hand side of your Polaroid DVD player (under power button)
- b. Plug in color coded composite cords
- c. Turn on your camcorder and your Polaroid DVR
- d. On the Polaroid DVD player remote control
 - i. Press the **SETUP** button
 - ii. Move the cursor to the "Watch TV" option on the screen by using the arrow buttons on the remote control.
 - iii. Press the **ENTER** button
 - iv. Press the **SOURCE** button on the remote control until you see **Video 2** on your TV monitor
 - v. Press the **PLAY** button on your camcorder
 - vi. Press the **REC** button on the remote control

4. How do I edit a disc?

- a. With the disc in the Polaroid DVR, press the **STOP** button on the remote control twice
- b. Using the arrow keys on the remote move the cursor to the "Play/Edit Disc" option
- c. Press the **ENTER** button
- d. Using the down arrow, select "Edit Disc"
- e. Press the **ENTER** button
- f. A menu with four options will appear
 - i. Format Disc
 - ii. Erase Disc
 - iii. Finalize Disc
 - iv. Rename Disc
- g. Choose the Erase Disc option if you want to delete everything from the disk.

5. When searching for channels I don't get anything. What's wrong?

- a. The DVR 0800 tuner is not digital. If your system is either digital cable or satellite you'll need to control channels through the cable box or satellite, not the Polaroid DVR-0800.

6. The DVD I recorded won't play on another DVD player.

- a. First, check to verify you finalized the disc after recording. If you did and it still won't play, it's likely a format problem. The DVR 0800 records in DVD+. Some DVD players are set up to read only DVD- discs.

7. I want to add content to a DVD I already recorded something on. How do I do that without overriding what I already recorded?

- a. The DVR 0800 automatically starts a new title with each recording so you won't override any content already on the disc.

8. How do I override what I already recorded?

- a. Erase the disc completely
 - i. With the disc in the DVD player Press the **STOP** button on the remote control twice
 - ii. Using the arrow keys on the remote move the cursor to the "Play/Edit Disc" option
 - iii. Press the **ENTER** button
 - iv. Using the down arrow, select "Edit Disc"
 - v. Press the **ENTER** button
 - vi. A menu with for options will appear
 - 1. Format Disc
 - 2. Erase Disc
 - 3. Finalize Disc
 - 4. Rename Disc
 - vii. Choose the Erase Disc option if you want to delete everything from the disk.
- b. Edit a title only

9. Is it possible to edit one specific title on a DVD disc?

- a. Renaming or deleting an individual title on a DVD disc
 - i. With the disc in the DVD player Press the **TITLE** button on the remote control
 - ii. Using the arrow keys on the remote, highlight the title you wish to edit or delete
 - iii. Press the **DISPLAY** button on the remote
 - iv. A menu with for options will appear
 - 1. Play title
 - 2. Title rename
 - 3. Title delete
 - 4. Cancel
 - v. Using the arrows on your remote control, select the option you wish to employ
 - vi. Press the **ENTER** button

10. How do I hook up basic audio to my television

Using the supplied audio cables, connect the **AUDIO OUT** jacks (LEFT/RIGHT) on the unit with the **AUDIO IN** jacks (LEFT/RIGHT) on your Television set

- a. Turn on the unit
- b. Press the **SETUP** button
- c. Press the Down arrow button three times to highlight “**Setup Menu**”
- d. Press the Right arrow button once
- e. Press the Down arrow button four times to highlight “**Speaker**”
- f. Press the **ENTER** button
- g. Press the Right arrow button once to select “Down Mix”
- h. Press the Up arrow button twice to highlight “Lt/Rt”
- i. Press the **ENTER** button to select “Lt/Rt”
- j. Press the **SETUP** button to exit

11. The player isn't playing.

The first thing to do is make sure that the disc cover is close and a disc is loaded. Other problems might include the disc being loaded upside down or the disc is dirty or warped. Also check to see if the player's region code is the same region code of your DVD disc.

12. There's no picture or sound...what's wrong?

Check to see if your system connection is correct. Then check to see if your speakers have power. Other problems might include the disc being loaded upside down or the disc is dirty or warped. Also check to see if the DVD player's region code is the same region code of your DVD disc. If that's not it, make sure your DVD player isn't muted.

13. I can't get a picture on the TV?

Make sure you check all connections, particularly the ones between your TV and the DVD player. If that's not the problem, check to see if your TV is turned on and is on the correct video setting. Also check to make sure your TV and speakers work properly and that your TV is not muted. And make sure that the progressive scan/interlace of the DVD player is set to match the display device. Press the **PS** button on the remote control to shift between progressive scan and interlace mode.

14. OK, it's playing but it keeps playing the same section over and over!

Is the DVD in A-B status? If it is, press the **A-B** button to cancel it. That should do the trick. Otherwise make sure your disc is clean and not warped.

15. The picture moves up and down...

Check to make sure your signal system is correct.

16. High humidity has given my player some water condensation! What now?

It's not the end of the world. Try taking out the disc and leave the player on for at least an hour. That should dry things out enough for normal operation.

17. The remote control doesn't seem to function.

Make sure you are pointing the remote directly at the remote sensor. The remote requires an unobstructed line-of-sight “connection” to your DVD player to work properly. If that's not the problem, make sure you have new batteries in the remote and that the batteries are inserted correctly into the remote control.

18. Everything seems to work OK, but I'm not happy with the picture and sound performance...

Check your disc. Make sure it's not dirty, warped or damaged. If you're playing an MP3, make sure the files were created with sufficient compression quality.

19. I'm getting a lot of static...what do I do now?

Optimal radio reception requires a correct antenna connection. Is yours connected correctly? Also make sure your antenna fully extended and away from the system and other equipment. You can also try unplugging your receiver to reset the player.

Glossary

Artifacts:

An anomaly that occurs on a video image as a result of a problem in the film-to-video transfer. Often occurs when trying to compress too much information on to the disc.

Aspect Ratio:

The width-to-height ratio of a television screen. Widescreen is 16:9, while the standard television aspect ratio is expressed 4:3.

Audio Streams:

DVD has the ability to hold a maximum of eight audio streams on a single disc. Usually used for multiple languages and/or the director's commentary.

Camera Angles:

DVD can support up to nine different camera angles. Discs that include "angles" let you watch scenes from different camera angles for a different prospective.

Chapters:

An easy way to organize what's on your DVD. Just like in a book, DVDs are split into chapters for easy referral and access.

Coaxial A/V Connection:

The traditional RF connection for a Video signal. All DVD Players will have a coaxial output for purposes of hooking up to televisions without separate audio/video inputs.

Coaxial Connection:

A type of connection used for consumer digital audio, which uses an RCA jack. The coaxial cable is an impedance-constant, two-conductor cable with either a stranded or solid core. For DVD digital audio, use a coaxial cable that has an impedance of 75-ohms (with 75-ohm connectors).

Component Video:

Component video offers the highest video quality available on DVD. Component video is a 3-channel system that is either RGB or color-difference. DVD component video is color-difference. Signals using color-difference contain the color component of the picture minus the brightness component. Component video is often regarded as being the next step beyond S-video that can be found on the majority of DVD players, the benefits include improved color accuracy and less color bleeding.

Component Video Output:

3 RCA or BNC connectors for the transfer of Component Video signal to TV or projector.

Composite Video:

An analog signal that contains the combined signals for luminance (black and white) and chrominance (color) components. This is the standard for broadcast TV, VHS and Laser disc.

All DVD players have this type of output. S-Video offers a better picture while Component video offers the best picture quality.

Composite Output:

Traditional RF type signal. All DVD players have this type of output since not all TV's have S-video or Component Video inputs.

Deleted Scenes:

Deleted Scenes are usually scenes that are removed from a program, for various reasons. Many times deleted scenes are reinserted into the film and the film is then called a "director's cut" or an "extended cut".

Digital Comb Filter:

To produce highly accurate Chrominance and Luminance signal separation, the chrominance and luminance signals are converted to a digital medium. This produces enhanced color purity and reduced dot crawl.

Digital Output:

The majority of all DVD players will have at least a coaxial or optical output for sending the Dolby Digital bitstream to a Dolby Digital decoder. This decoder may be a stand-alone unit or built into a receiver.

Digital video:

A video signal represented by computer-readable binary numbers that describe colors and brightness levels.

Dolby Digital:

This proprietary technology is used to decode high-quality sounds from the DVD.

DVD:

Digital Versatile Disc, not Digital Video Disc.

Easter Eggs:

These are hidden features that many DVDs now contain and can usually be accessed via a hidden icon on a menu.

Frame Rate:

Number of frames per second displayed in motion.

5.1:

The five indicates the number of sound channels available - in this case there would be front left and right, rear left and right and centre. The number after the dot indicates sub-woofer support.

HDTV:

High Definition Television encompasses both analog and digital televisions that have a 16:9 aspect ratio and approximately 5 times the resolution of standard TV (double vertical, double horizontal, wider aspect).

Horizontal Resolution:

The number of lines that run across the width of a TV. The bigger the number, the clearer the picture.

Standard VHS resolution - 220 horizontal lines

Laser disc - 425 horizontal lines

DVD - 480-500 horizontal lines

Layer:

All the information appearing on your screen is stored in layers. DVDs can be double sided (two layers).

Letterbox:

The use of upper and lower black mattes to keep films in their original aspect ratio.

Moire:

Circular lines that appear on television screens when they are filmed.

Optical Output:

In the case of DVD, this connection is used to connect the DVD digital output to a surround sound processor via a TOSLINK cable to process DVD sound (Dolby Digital).

Parental Lock:

Allows users to block certain content

Pixel:

This is similar to PC monitors and measures the width by height of your display in pixels.

Progressive Scan:

A video scanning system that displays all lines of a frame in one pass as opposed to interlacing the lines (alternating the lines, showing half of the picture each pass).

Regional Coding:

DVD players are hard-coded to accept DVDs that are only meant to be played within one of six designated world regions. A Code 1 disc cannot be played in a Code 3 region for example. This technique was developed to enable Hollywood companies to release movies at different times in different regions.

The DVD regions are defined as:

Region 1 - United States of America, Canada

Region 2 - Europe, Greece, Turkey, Egypt, Arabia, Japan and South Africa

Region 3 - Korea, Thailand, Vietnam, Borneo and Indonesia

Region 4 - Australia and New Zealand, Mexico, the Caribbean, and South America

Region 5 - India, Africa, Russia and former USSR countries

Region 6 – People's Republic of China

RGB:

Red, Green & Blue. A color model used in computer/monitor displays, in which different colors are specified according to the combination of their red, green and blue components.

ROM:

Read Only Memory cannot be written to.

S-Video Output:

Unlike the RGB Component output, S-Video modulates the video signal in its separate parts -- chrominance (color) and luminance (light and dark). This makes for a more precise, detailed picture than RF.

Surround Sound:

One of the most high-fidelity sound protocols available for the home user. Surround sound makes you feel like you are in the middle of the picture. Also known as positional sound.

Y/C:

Another term for S-Video. The cable carries the luminance ("Y") and chrominance ("C") on separate channels.